FIG.3

Amend

	Code	Item	Example
101	0	Process Code	1
102	1	Job Name	weld of pipe 1
103	2	Job Code	1
104	3	Part Code	45
105	4	Contractor Code	12345
106	5	~~Estimated Materials~~	100
107	6	~~Estimated Workmen~~	10
108	7	~~Estimated Workdays~~	5
109	8	~~Estimated Man-Days~~	50
110	9	~~Estimated~~ Starting Date	50
111	10	Critical Processes in Pre-Sequential Process:	3
112	11	Critical Processes in Post-Sequential Process:	2
113	12	Critical Starting Date:	45
114	13	Critical Completion Date:	60

FIG.4

	Code	Item	Example
201	0	Actual Material Quantities (accumulation)	250
202	1	Actual Man-Days	5000
203	2	Actual Starting Date	52
204	3	Actual Ending Date	75

FIG.5

	Code	Item	Example
301	0	Job Code	1
302	1	[redacted] of Starting Date Average	0
303	2	[redacted] of Starting Date Standard Deviation	1.2
304	3	[redacted] of Starting Date Minimum Allowance	−2
305	4	[redacted] of Starting Date Maximum Allowance	3
306	5	[redacted] of Elementary Unit Average	0.5
307	6	[redacted] of Elementary Unit Standard Deviation	3.5
308	7	[redacted] of Elementary Unit Minimum Allowance	−2.5
309	8	[redacted] of Elementary Unit Maximum Allowance	10

FIG.6

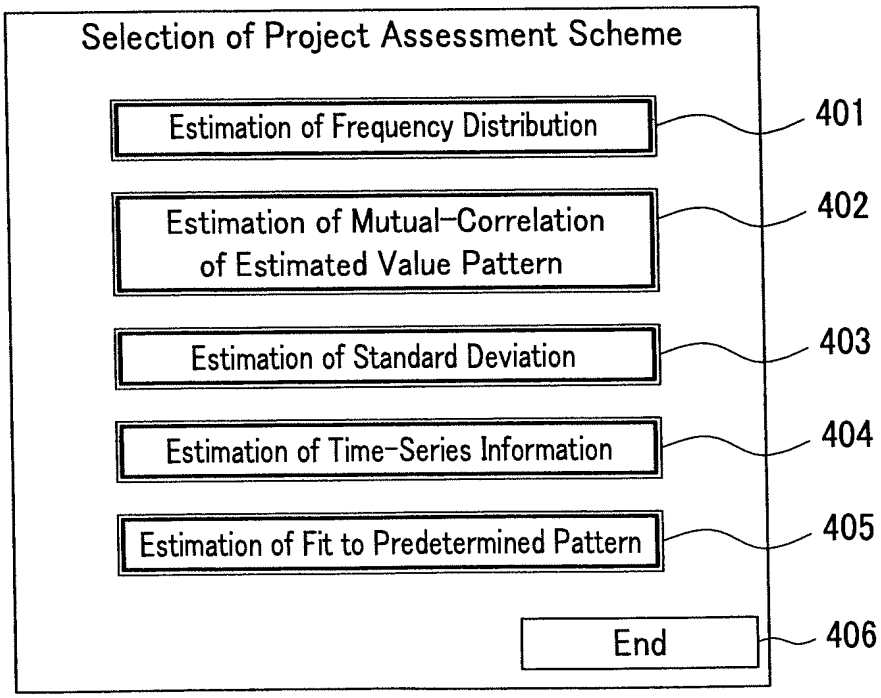

FIG.9

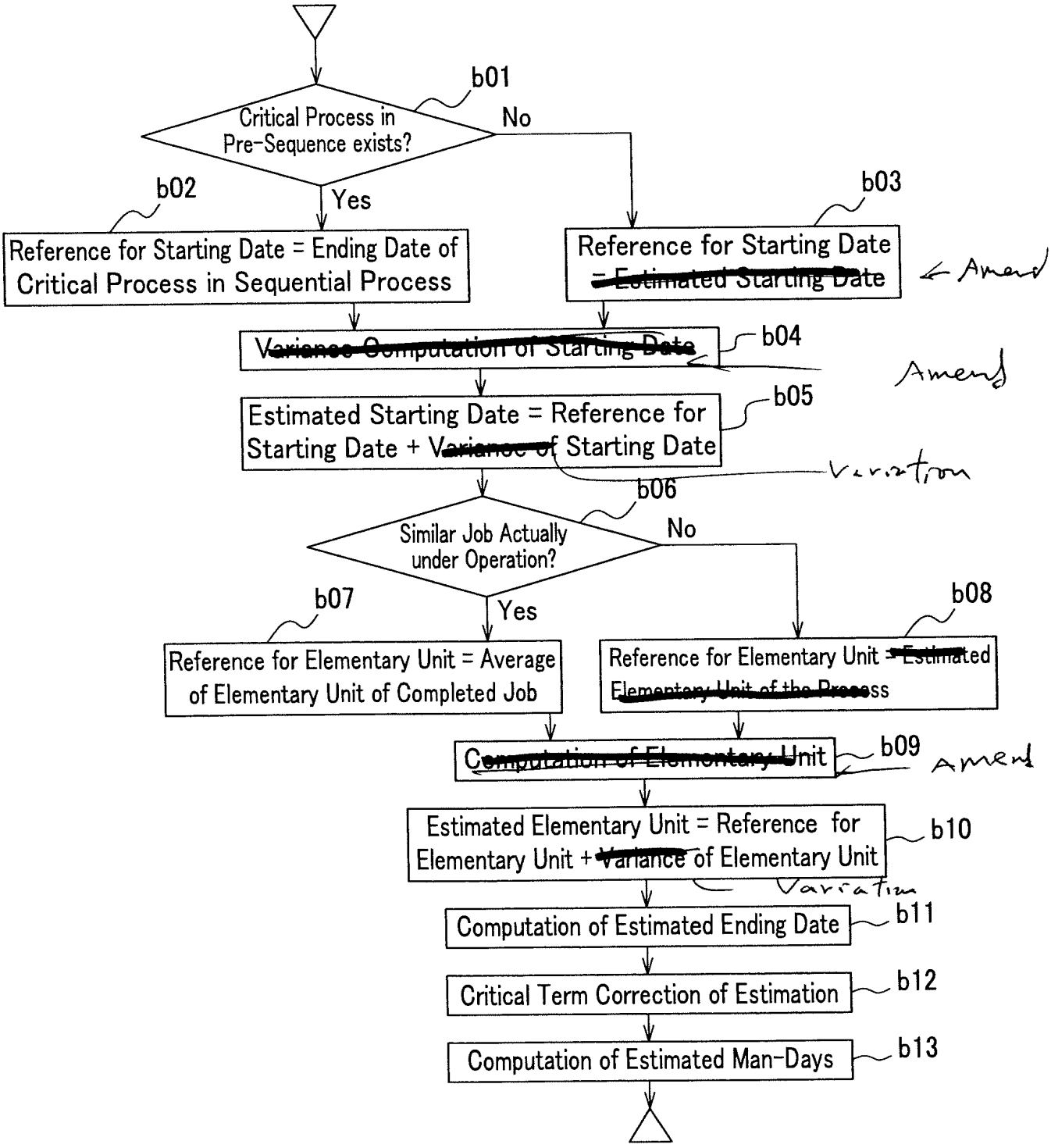
b01
Critical Process in Pre-Sequence exists?
No
Yes
b02
Reference for Starting Date = Ending Date of Critical Process in Sequential Process
b03
Reference for Starting Date = Estimated Starting Date
Amend
Variance Computation of Starting Date
b04
Amend
Estimated Starting Date = Reference for Starting Date + Variance of Starting Date
b05
Variation
b06
Similar Job Actually under Operation?
No
Yes
b07
Reference for Elementary Unit = Average of Elementary Unit of Completed Job
b08
Reference for Elementary Unit = Estimated Elementary Unit of the Process
Computation of Elementary Unit
b09
Amend
Estimated Elementary Unit = Reference for Elementary Unit + Variance of Elementary Unit
b10
Variation
Computation of Estimated Ending Date
b11
Critical Term Correction of Estimation
b12
Computation of Estimated Man-Days
b13

FIG.14

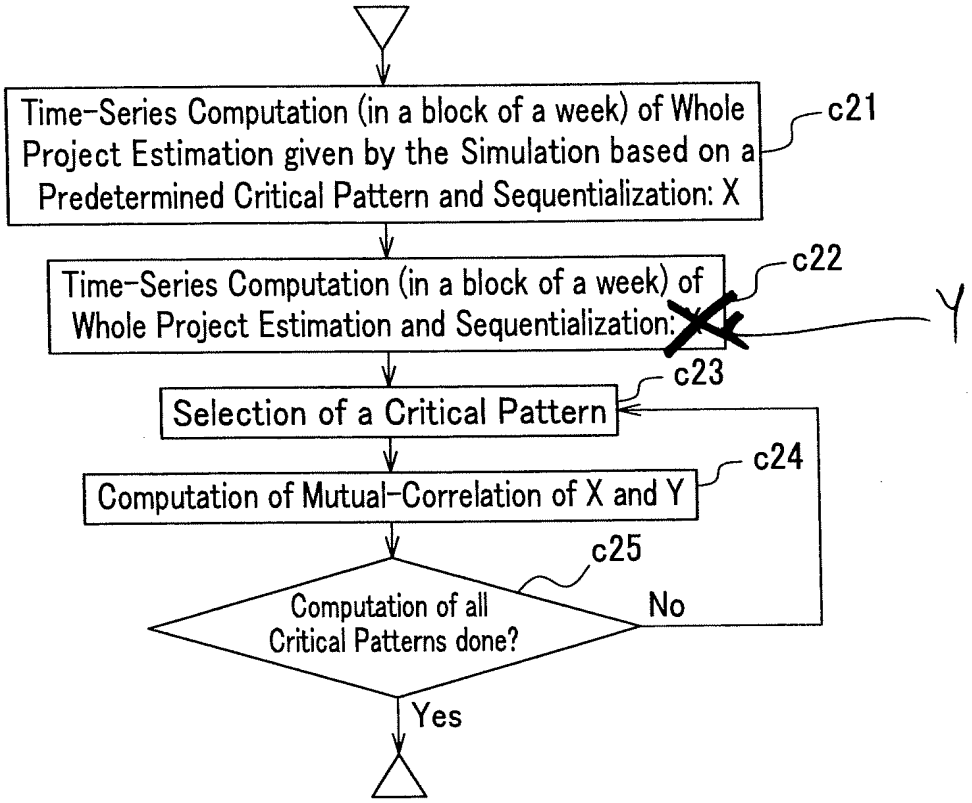
Time-Series Computation (in a block of a week) of Whole Project Estimation given by the Simulation based on a Predetermined Critical Pattern and Sequentialization: X
c21
Time-Series Computation (in a block of a week) of Whole Project Estimation and Sequentialization: Y
c22
Y
Selection of a Critical Pattern
c23
Computation of Mutual-Correlation of X and Y
c24
Computation of all Critical Patterns done?
c25
No
Yes

FIG.15

420

421

First Week	Second Week	...	Last Week
First Week	Second Week	...	Last Week
SIM Times = First Estimate	SIM Times = First Estimate	...	SIM Times = First Estimate
SIM Times= Second Estimate	SIM Times= Second Estimate	...	SIM Times= Second Estimate
...	...	...	...
SIM Times = n-th Estimate	SIM Times = n-th Estimate	...	SIM Times = n-th Estimate